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| 10/732,750 | 12/10/2003 | Mark Foladare | 1014-054 (2002-0389) | 6537 |
| 26652 | 7590 | 05/11/2007 | EXAMINER | |
| AT&T CORP. ROOM 2A207 ONE AT&T WAY BEDMINSTER, NJ 07921 | | | AGHERA, SAMEER R | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/732,750

Applicant(s)

FOLADARE ET AL.

Examiner

Sameer Aghera

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10 December 2003
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims states "the future QoS metric is within an ability of the connection." The specification does not specify a particular ability which is useful for the connection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-11 and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Parlos (US 2005/0013244 A1).

Regarding claim 1, Parlos shows a method, comprising: for each of a plurality of subscribed services (Figure 2) associated with a subscriber endpoint (Figure 2, item

260) in a communications network (Figure 1A), for a wired connection (Figure 2, item 240) associated with the subscribed service (Figure 2): determining a current QoS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104); and based on the current QoS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) and historical QoS metrics (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) for the subscribed service (see "may consist of metrics such as e2e delay, e2e delay jitter, packet loss, and throughput requirements" page 3, paragraph 51), adjusting a QoS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104) to change a future QoS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104).

Regarding claim 2, Parlos shows determining the historical QoS metrics (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104).

Regarding claim 3, Parlos shows regressing the historical QoS metrics see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104). The Examiner interprets regressing as simply going back and retrieving previous QoS values.

Regarding claim 4, Parlos shows estimating the future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104).

Regarding claim 5, Parlos shows estimating the future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104) for the wired connection (Figure 1A).

Regarding claim 6, Parlos shows determining the QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104).

Regarding claim 7, Parlos shows determining an adjustment (see "determining adjustments" page 5, paragraph 78) to the QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104).

Regarding claim 8, Parlos shows the future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104) fulfills a requirement of the subscribed service (see "set of measureable metrics" and "throughput requirements" page 3, paragraph 51).

Regarding claim 9, Parlos shows wherein the future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104) is

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within an ability of the connection (see "predictive flow control" page 4, paragraph 56).

The Examiner interprets ability of the connection as the ability to control flow or congestion through the link.

Regarding claim 10, Parlos shows the QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104) is compression algorithm (see "ACC algorithm incorporates compression" page 5, paragraph 86).

Regarding claim 11, Parlos shows the QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104) is transmission rate (see "bit rate" page 2, paragraph 13).

Regarding claim 19, Parlos shows determining a current QOS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104); and utilizing the current QOS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) and historical QOS metrics (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) for the subscribed service (see "may consist of metrics such as e2e delay, e2e delay jitter, packet loss, and throughput requirements" page 3, paragraph 51), adjusting a QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph

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104) to change a future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104).

Regarding claim 20, Parlos shows the means for determining a current QOS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104); and utilizing the current QOS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) and historical QOS metrics (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) for the subscribed service (see "may consist of metrics such as e2e delay, e2e delay jitter, packet loss, and throughput requirements" page 3, paragraph 51), means for adjusting a QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104), to change a future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Murphy (6,542,499 B1).

Parlos discloses the claimed limitations in paragraph 3 above. Parlos does not disclose that the current QOS metric is sound clarity.

Murphy discloses a call fallback scheme used for a VoIP link comprising the following features.

Wherein that the current QOS metric (see "QoS" col. 1, lines 29) is sound clarity (see "sound quality" col. 1, lines 32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Parlos, by using the features, as taught by Murphy, in order to reduce cost for the customer by effectively switching between the PSTN and IP network (see Murphy, col. 1, lines 51-58).

6. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Gehring (6,944,148 B1).

Parlos discloses the claimed limitations in paragraph 3 above. Parlos does not disclose the following features: regarding claim 13, wherein the current QoS metric is sound fidelity; regarding claim 14, wherein the current QoS metric is voice quality.

Gehring discloses a method to manage variable-sized data slots comprising the following features.

Regarding claim 13, wherein the current QOS metric (see "QoS" col. 2, lines 44) is sound fidelity (see "fidelity" col. 2, lines 53).

Regarding claim 14, wherein the current QOS metric (see "QoS" col. 2, lines 44) is voice quality (see "stereo-quality" col. 2, lines 53).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Parlos, by using the features, as taught by Gehring, in order to achieve optimal performance for sound quality (Gehring, col. 2, line 49).

7. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Bai (US 2005/0152397 A1).

Parlos discloses the claimed limitations in paragraph 3 above. Parlos does not disclose the following features: regarding claim 15, wherein the current QOS metric is video picture quality; regarding claim 16, wherein the current QOS metric is video picture movement.

Bai shows a communication system that is able to manage the flow of packets comprising the following features.

Regarding claim 15, wherein the current QoS metric (see "Quality of service primitive" page 9, paragraph 134) is video picture quality (see "video quality" page 9, paragraph 134).

Regarding claim 16, wherein the current QOS metric (see "Quality of service primitive" page 9, paragraph 134) is video picture movement (see "quality and resolution" page 9, paragraph 134). The Examiner notes that video movement is interpreted to mean the ability to sustain a set resolution.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Parlos, by using the features, as taught by Bai, in order to minimize delay and maximize throughput in video data (see Bai page 9, paragraph 132).

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Bearden (6,871,233 B1).

Parlos discloses the claimed limitations in paragraph 3 above. Parlos does not disclose the following features: the current QOS metric is response time.

Bearden discloses a method to insure quality of service in computer networks comprising the following features.

Wherein the current QOS metric (see "QoS metric" col. 1, lines 60) is response time (see "service response time" col. 1, lines 61).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Parlos, by using the features, as taught by Bearden, in order to easily supply parameters for QOS (see Bearden, col. 1, lines 56-57).

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Lotter (US 2003/0219034 A1).

Parlos discloses the claimed limitations in paragraph 3 above. Parlos does not disclose the following features: the current QoS metric is error rate.

Lotter discloses a method to optimize a radio link comprising the following features.

Wherein the the current QOS metric (see "QoS" page 1, paragraph 8) is error rate (see "Bit Error Rate" page 1, paragraph 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Parlos, by using the features, as taught by Lotter, in order to optimize constrained resources in a radio network (see Lotter, page 1, paragraph 17).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameer Aghera whose telephone number is 571-272-9744. The examiner can normally be reached on M-F 7:30 AM to 5 PM; Off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on 571-272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SA

Sameer Aghera

KWANG BIN YAO
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to be 'KB Yao', written in a cursive style.